

**IN THE U.S. PATENT AND TRADEMARK OFFICE**

Applicants:	KAUPPINEN et al.	Confirmation:	8095
Serial No.:	10/591,954	Art Unit:	2812
Filed:	September 8, 2006	Examiner:	Not assigned
For:	SINGLE, MULTI-WALLED, FUNCTIONALIZED AND DOPED CARBON NANOTUBES AND COMPOSITES THEREOF		

**INFORMATION DISCLOSURE STATEMENT**

Assistant Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**December 8, 2006**

Sir:

In compliance with Rules 1.97 and 1.98, and in fulfillment of the duty of disclosure under Rule 1.56, included with the attached Form PTO-1449 are copies of a search report and translation thereof from the corresponding Finnish application, as well as a copy of the International Search Report. Copies of the cited foreign references are enclosed; copies of the U.S. patents and patent publications are omitted in view of the USPTO waiver of the requirement to provide such copies in applications filed after June 30, 2003.

This Information Disclosure Statement is being submitted prior to issuance of an action on the merits; therefore, no fee is required.

The Examiner is courteously requested to initial and return a copy of the Form PTO-1449 to confirm entry into the record and consideration of the listed references.

Respectfully submitted,

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<b>INFORMATION DISCLOSURE CITATION IN AN APPLICATION</b>  (Use several sheets if necessary)	Attorney Docket No.: <b>3505-1027</b>	Application No.: <b>10/591,954</b>
	Applicant: <b>Esko KAUPPINEN et al.</b>	
	Filing Date: <b>September 8, 2006</b>	Group Art Unit: <b>2812</b>

### U.S. PATENT DOCUMENTS

Examiner Initial	Document Number	Date	Name	Class	Subclass	Filing date (if appropriate)
	2002/0102193	8/1/2002	SMALLEY et al.			
	6,692,717	2/17/2004	SMALLEY et al.			
	2002/0102203	8/1/2002	SMALLEY et al.			

### FOREIGN PATENT DOCUMENTS

Examiner Initial	Document Number	Date	Country	Class	Subclass	Translation	
						Yes	No
	WO 00/26138	05/11/2000	WIPO				
	WO 03/056078	07/10/2003	WIPO				
	WO 02/095097	11/28/2002	WIPO				
	WO 02/076887	10/3/2002	WIPO				
	20035120	07/04/2003	FINLAND				

### OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	BLADH et al., "On the iron-catalysed growth of single-walled carbon nanotubes and encapsulated metal particles in the gas phase," <i>Applied Physics A: Materials Science &amp; Processing</i> , Volume 70, 2000, pp. 317-322.
	DAI et al., "Single-wall nanotubes produced by metal-catalyzed disproportionation of carbon monoxide," <i>Chemical Physics Letters</i> , Vol. 260, September 27, 1996, pp. 471-475.
	GOVINDARAJ et al., "Carbon Structures Obtained by the Disproportionation of Carbon Monoxide over Nickel Catalysts," <i>Materials Research Bulletin</i> , Vol. 33, No. 4, 1998, pp. 663-667.
	GUO et al., "Catalytic growth of single-walled nanotubes by laser vaporization," <i>Chemical Physics Letters</i> , Vol. 243, 49-54, September 8, 1995.
	HAFNER et al., "Catalytic growth of single-wall carbon nanotubes from metal particles," <i>Chemical Physics Letters</i> , Vol. 296, October 30, 1998, pp. 195-202.
	IJIMA, "Letters to Nature: Helical microtubules of graphitic carbon," <i>Nature</i> , Vol. 354, November 7, 1991.
	JIAO et al., "Single-walled tubes and encapsulated nanoparticles: comparison of structural properties of carbon nanoclusters prepared by three different methods," <i>Journal of Physics and Chemistry of Solids</i> , Vol. 61, 2001, pp. 1055-1067.
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	MOISALA et al., "The role of metal nanoparticles in the catalytic production of single-walled carbon nanotubes—a review," <i>Journal of Physics: Condensed Matter</i> , Vol. 15, 2003, pp. S3011-S3035.
	NASIBULIN et al., "Nanoparticle Formation via Copper (II) Acetylacetonate Vapor Decomposition in the Presence of Hydrogen and Water," <i>Journal of Physical Chemistry B: Materials</i> , Vol. 105, 2001, pp. 11067-11075.
	NASIBULIN et al., "TEM imaging of mass-selected polymer molecules," <i>Journal of Nanoparticles Research</i> , Vol. 4, 2002, pp. 449-453.
	NASIBULIN et al., "Carbon nanotubes and onions from carbon monoxide using Ni(acac) <sub>2</sub> and Cu(acac) <sub>2</sub> as catalyst precursors," <i>Carbon</i> , Vol. 41, 2003, pp. 2711-2724.
	NASIBULIN et al., "A novel aerosol method for single walled carbon nanotube synthesis," <i>Chemical Physics Letters</i> 402 (2005) 227-232.
	SHYU et al., "The effects of pre-treatment and catalyst composition on growth of carbon nanofibers at low temperature," <i>Diamond and Related Materials</i> , Vol. 10, 2001, pp. 1241-1245.

EXAMINER:	DATE CONSIDERED
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EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

\* English language abstract provided for the Examiner's convenience